

Appl. No. 09/828,715
Amdt. Dated March 8, 2004
Reply to Office Action of December 16, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-40. (Cancelled)

41. (Currently amended) A method for joining substrates, said method comprising:

providing a first substrate having an upper surface and a lower surface and a second substrate having an upper surface and a lower surface;

positioning a continuous thermoplastic tape adjacent to said first substrate and said second substrate such that said tape is in operative communication with said upper and lower surfaces of said first substrate and with said upper and lower surfaces of said second substrate, wherein said tape is capable of forming both an adhesive bond and a physical bond with said substrates; and

forming a seam by bonding said tape to said upper and lower surfaces of said first substrate and to said upper and lower surfaces of said second substrate, wherein said bonding between said tape and said upper and lower surfaces of said first and second substrates includes physical bonding and, ~~optionally~~, adhesive bonding.

42. (Previously presented) A method as defined in claim 41, further comprising heating at least a portion of said tape to a predetermined temperature.

43. (Previously presented) A method as defined in claim 42, wherein said temperature is between about 10°C below and about 50°C above a thermal melting temperature of said at least a portion of said tape.

44. (Previously presented) A method as defined in claim 41, further comprising subjecting at least a portion of said tape to pressure.

45. (Previously presented) A method as defined in claim 44, wherein said pressure is between about 40 pounds per square inch to about 120 pounds per square inch.

46. (Previously presented) A method as defined in claim 41, further comprising subjecting said tape to simultaneous heat and pressure.

Appl. No. 09/828,715
Amdt. Dated March 8, 2004
Reply to Office Action of December 16, 2003

47. (Previously presented) A method as defined in claim 41, wherein said first substrate and said second substrate are fabrics.

48. (Previously presented) A method as defined in claim 41, wherein at least a portion of said tape contains multiple layers.

49. (Previously presented) A method as defined in claim 48, wherein one of said layers contains a thermoplastic material having a first thermal melting temperature and another of said layers contains a thermoplastic material having a second thermal melting temperature, said second thermal melting temperature being greater than said first thermal melting temperature.

50. (Previously presented) A method as defined in claim 41, further comprising folding said tape into a certain shape.

51. (Previously presented) A method as defined in claim 50, wherein said tape is folded into a z-shaped configuration.

52. (Previously presented) A method as defined in claim 50, wherein said tape is folded prior to being positioned adjacent to said first substrate and said second substrate.

53. (Previously presented) A method as defined in claim 50, wherein said tape is folded after being positioned adjacent to said first substrate and said second substrate.

54. (Previously presented) A method as defined in claim 41, further comprising etching at least one of said surfaces of said first substrate, said second substrate, or combinations thereof.

55. (Previously presented) A method as defined in claim 41, wherein an edge defined by said upper and lower surfaces of at least one of said substrates is non-linear.

56. (Previously presented) A method as defined in claim 41, wherein said tape comprises polyurethane.

57. (Currently amended) A method for joining fabrics comprising:
providing a first fabric having an upper surface and a lower surface and a second fabric having an upper surface and a lower surface;
folding a continuous thermoplastic tape into a z-shaped configuration and
positioning said tape adjacent to said first fabric and said second fabric such that said

Appl. No. 09/828,715
Amdt. Dated March 8, 2004
Reply to Office Action of December 16, 2003

tape is in operative communication with said upper and lower surfaces of said first fabric and with said upper and lower surfaces of said second fabric, wherein said tape is capable of forming both an adhesive bond and a physical bond with said fabrics; and

forming a seam by subjecting said tape to simultaneous heat and pressure, thereby bonding said tape to said upper and lower surfaces of said first fabric and to said upper and lower surfaces of said second fabric, wherein said bonding between said tape and said upper and lower surfaces of said first and second fabrics includes physical bonding and adhesive bonding.

58. (Previously presented) A method as defined in claim 57, wherein said tape comprises polyurethane.

59. (Previously presented) A method as defined in claim 57, wherein at least a portion of said tape contains multiple layers.

60. (Previously presented) A method as defined in claim 59, wherein one of said layers contains a thermoplastic material having a first thermal melting temperature and another of said layers contains a thermoplastic material having a second thermal melting temperature, said second thermal melting temperature being greater than said first thermal melting temperature.

61. (Previously presented) A method as defined in claim 57, wherein at least a portion of said tape is heated to a temperature between about 10°C below and about 50°C above a thermal melting temperature of said at least a portion of said tape.

62. (Previously presented) A method as defined in claim 57, wherein at least a portion of said tape is subjected to a pressure between about 40 pounds per square inch to about 120 pounds per square inch.

63. (Currently amended) An article comprising:
a first substrate having an upper surface and a lower surface and a second substrate having an upper surface and a lower surface; and
a seam defined by a continuous thermoplastic tape bonded to said upper and lower surfaces of said first substrate and said upper and lower surfaces of said second substrate, wherein said tape is capable of forming both an adhesive bond and a physical bond with said substrates, and wherein said bonding between said tape and

Appl. No. 09/828,715
Amdt. Dated March 8, 2004
Reply to Office Action of December 16, 2003

said upper and lower surfaces of said first and second substrates includes physical bonding and, ~~optionally~~, adhesive bonding.

64. (Previously presented) An article as defined in claim 63, wherein said first and said second substrates are fabrics.

65. (Previously presented) An article as defined in claim 63, wherein an edge defined by said upper and lower surfaces of at least one of said substrates is non-linear.

66. (Previously presented) An article as defined in claim 63, wherein at least one of said surfaces of said first substrate, said second substrate, or combinations thereof, is etched.

67. (Previously presented) An article as defined in claim 63, wherein said tape comprises polyurethane.

68. (Previously presented) An article as defined in claim 63, wherein at least a portion of said tape contains multiple layers.

69. (Previously presented) An article as defined in claim 68, wherein one of said layers contains a thermoplastic material having a first thermal melting temperature and another of said layers contains a thermoplastic material having a second thermal melting temperature, said second thermal melting temperature being greater than said first thermal melting temperature.

70. (Previously presented) An article as defined in claim 63, wherein said tape is folded into a z-shaped configuration.

71. (Currently amended) An article comprising:

a first fabric having an upper surface and a lower surface and a second fabric having an upper surface and a lower surface; and

a seam defined by a continuous thermoplastic tape folded into a z-shaped configuration and bonded to said upper and lower surfaces of said first fabric and said upper and lower surfaces of said second fabric, wherein said tape is capable of forming both an adhesive bond and a physical bond with said fabrics, and wherein said bonding between said tape and said upper and lower surfaces of said first and second fabrics includes physical bonding and adhesive bonding.

Appl. No. 09/828,715
Amdt. Dated March 8, 2004
Reply to Office Action of December 16, 2003

72. (Previously presented) An article as defined in claim 71, wherein said tape comprises polyurethane.

73. (Previously presented) An article as defined in claim 71, wherein at least a portion of said tape contains multiple layers.

74. (Previously presented) An article as defined in claim 73, wherein one of said layers contains a thermoplastic material having a first thermal melting temperature and another of said layers contains a thermoplastic material having a second thermal melting temperature, said second thermal melting temperature being greater than said first thermal melting temperature.

75-76. (Cancelled)